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WATER-BASE PRINTING INK

Abstract:

PURPOSE: To obtain the title ink which has long pot life and gives printed matter excellent in solvent, chemical and water resistances by using a copolymer containing an acrylic ester and an organic metal chelate compound as constituents.

CONSTITUTION: The title ink contains an organic metal chelate compound and a copolymer containing 3-60wt.% acrylic ester of the formula. In the vinyl monomer composition for the copolymer, an acrylic or methacrylic acid is used in an amount of 0-40wt.%. If the amount of the acid is too small the solubility of the copolymer in water will be poor; if too large the alkali and water resistances of the copolymer will be reduced. It is desirable that the weight-average molecular weight of the acrylic copolymer used be 20,000 to 70,000. The amount of the organic metal chelate compound to be used is 0.1-10wt.%. If it is below 0.1wt.%, the crosslinking effect will be poor; if above 10wt.%, plate filling will be caused by an increase in the viscosity of ink with time and a reduction in the resolubility, with the result of an adverse effect on printing.

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